



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

October 3, 2013

Via E-mail

Pardeep Kohli
Chief Executive Officer
Mavenir Systems, Inc.
1700 International Parkway, Suite 200
Richardson, Texas 75081

**Re: Mavenir Systems, Inc.
Amendment No. 5 to Confidential Draft Registration Statement on Form S-1
Submitted September 23, 2013
CIK No. 1361470**

Dear Mr. Kohli:

We have reviewed the above-referenced draft registration statement, and have the following comments.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Critical Accounting Policies and Significant Judgments and Estimates

Stock-Based Compensation

Determination of the Fair Value of Common Stock on Grant or Modification Dates, page 70

1. The tabular disclosure on page 70 indicates that you granted 209,000 options on May 8, 2013. Please update your disclosure to discuss the valuation associated with this grant.
2. We note your disclosure on page 76 describes option grants made on August 7, 2013 that include an exercise price equal to the IPO price. When your IPO price is known, please update your disclosure to indicate the expected compensation expense associated with this grant. Additionally, please describe the vesting terms and other material information with respect to these options. Finally, expand your discussion of the material terms of the grants on page 123.

Pardeep Kohli
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Consolidated Financial Statements of Mavenir Systems, Inc. and Subsidiaries

Note 11 – Shareholders' Deficit

Stock Option Plan, page F-31

3. We note that you removed disclosure required by ASC 718-10-50-2(d)(1) and 2(e)(1) and (2). Please revise to include all of the disclosures required by ASC 718-10-50-2, as applicable.

Item 15. Recent Sales of Unregistered Securities, page II-2

4. Please add disclosure regarding the August 7, 2013 option grant. See Item 701 of Regulation S-K.

You may contact Jaime John, Staff Accountant, at (202) 551-3446 or Patrick Gilmore, Accounting Branch Chief, at (202) 551-3406 if you have questions regarding comments on the financial statements and related matters. Please contact Evan S. Jacobson, Special Counsel, at (202) 551-3428 or me at (202) 551-3735 with any other questions.

Sincerely,

/s/ Barbara C. Jacobs

Barbara C. Jacobs
Assistant Director

cc: Via E-mail
Alan Bickerstaff, Esq.
Andrews Kurth LLP